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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Patrick J. Helland

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EXAMINER

SIDDIQI, MOHAMMAD A

ART UNIT

PAPER NUMBER

2493

MAIL DATE

DELIVERY MODE

03/17/2011

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/776,841	HELLAND ET AL.	
	Examiner	Art Unit	
	MOHAMMAD A. SIDDIQI	2493	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 January 2011.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-25 and 29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7-25 and 29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 17-25 and 29 are presented for the examination. Claims 1-16, 26-28 and 30 have been cancelled.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 01/25/2011 has been entered.

Claim Rejections - 35 USC § 101

3. Claim 29 is rejected under 35 U.S.C. 101 because computer-readable medium appears in the preamble. The United States Patent and Trademark Office (USPTO) is obliged to give claims their broadest reasonable interpretation consistent with the specification during proceedings before the USPTO. *See In re Zletz*, 893 F.2d 319 (Fed. Cir. 1989) (during patent examination the pending claims must be interpreted as broadly as their terms reasonably allow). The broadest reasonable interpretation of a

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claim drawn to a computer readable medium (also called machine readable medium and other such variations) typically covers forms of non-transitory tangible media and transitory propagating signals *per se* in view of the ordinary and customary meaning of computer readable media, particularly when the specification is silent. See MPEP 2111.01. When the broadest reasonable interpretation of a claim covers a signal *per se*, the claim must be rejected under 35 U.S.C. § 101 as covering non-statutory subject matter. See *In re Nuijten*, 500 F.3d 1346, 1356-57 (Fed. Cir. 2007) (transitory embodiments are not directed to statutory subject matter) and *Interim Examination Instructions for Evaluating Subject Matter Eligibility Under 35 U.S.C. § 101*, Aug. 24, 2009; p. 2.

The USPTO recognizes that applicants may have claims directed to computer readable media that cover signals *per se*, which the USPTO must reject under 35 U.S.C. § 101 as covering both non-statutory subject matter and statutory subject matter. In an effort to assist the patent community in overcoming a rejection or potential rejection under 35 U.S.C. § 101 in this situation, the USPTO suggests the following approach. A claim drawn to such a computer readable medium that covers both transitory and non-transitory embodiments may be amended to narrow the claim to cover only statutory embodiments to avoid a rejection under 35 U.S.C. § 101 by adding the limitation “non-transitory” to the claim. Cf. *Animals – Patentability*, 1077 Off. Gaz. Pat. Office 24 (April 21, 1987) (suggesting that applicants add the limitation “non-human” to a claim covering a multi-cellular organism to avoid a rejection under 35 U.S.C. § 101). Such an amendment would typically not raise the issue of new matter,

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even when the specification is silent because the broadest reasonable interpretation relies on the ordinary and customary meaning that includes signals *per se*. The limited situations in which such an amendment could raise issues of new matter occur, for example, when the specification does not support a non-transitory embodiment because a signal *per se* is the only viable embodiment such that the amended claim is impermissibly broadened beyond the supporting disclosure. *See, e.g., Gentry Gallery, Inc. v. Berkline Corp.*, 134 F.3d 1473 (Fed. Cir. 1998).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 17-25 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hickson et al. (6,226,641) (Hereinafter Hickson) in view of Klein et al. (2003/0212818) (Hereinafter Klein).

6. As per claim 17, Hickson discloses a method that facilitates message processing, the method performed within a computer comprising one or more processors and computer system memory, the method comprising:

requesting one or more messages (101,102, fig 8, col 7, lines 43-53, find grouped message);

storing the one or more messages in order (col 4, lines 57-60);

determining from information associated with the one or more message that each of the one or more message belongs to a group (fig 7, col 5, lines 24-26);

linking the one or more messages by a unique group identifier (fig 7, col 5, lines 24-26, group ID consist of one or more messages);

locking the group (col 7, line 39, lock applied to entire group), the lock preventing a disparate requestor from accessing the one or more messages linked by the unique group identifier (col 4, lines 53-54; col 7, line 39, lock applied to entire group and no other thread or application may access the message);

providing exclusive serial access to the messages linked by the unique group identifier (col 4, lines 53-54; col 7, line 39, exclusive lock applied to entire group and no other thread or application may access the message) such that only one service can process linked message at any time (col 4, lines 53-54; col 7, line 39, lock applied to entire group and no other thread or application may access the message) and such that the messages are processed in order (fig 7 and 8, col 4, lines 57-60);

while providing exclusive serial access to the messages linked by the unique group identifier (col 4, lines 53-54; col 7, line 39, exclusive lock applied to entire group and no other thread or application may access the message);

when a reader has finished processing the linked messages, receiving a notification from the reader to release the lock on the group (col 4, lines 53-56, broadly

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interpreting unlocked by the application is releasing lock; see abstract also); and releasing the lock (col 4, lines 53-56, broadly interpreting unlocked by the application is releasing lock).

. Hickson did not specifically disclose the group is conversation group, providing concurrent processing of one or more messages not linked by the unique group identifier. However, Klein discloses group can be any type including conversation group (fig 4, para [0071]), providing concurrent processing of one or more messages not linked by the unique group identifier (para [0076]). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teachings of Klein and Hickson. All the claimed elements (concurrent processing of the messages, relationship/linking messages between parent [group] and child [message]) were known in the database art and one skilled in the art would have combined the elements as claimed by known methods with no change in their respective functions and the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

7. As per claim 18, the claim is rejected for the same reasons as claim 17, above. In addition, Klein discloses receiving one or more related messages associating the related messages with the conversation group (para [0076], instance identifier and associated messages); and the related messages to mitigate out-of-order processing (para [0076] broadly interpreting out-of-order as inefficiencies).

8. As per claim 19, the claim is rejected for the same reasons as claim 17, above. In addition, Klein discloses automatically updating the conversation group (para [0076]) with incoming related messages (para[0069]).

9. As per claim 20, the claim is rejected for the same reasons as claim 17, above. In addition, Hickson discloses utilizing a group identifier to lock the group (col 7, line 39, lock applied to entire group).

10. As per claim 21, the claim is rejected for the same reasons as claim 17, above. In addition, Hickson discloses storing the message in-order (col 4, lines 57-60)

11. As per claim 22, Hickson discloses receives a request for a message (101,102, fig 8, col 7, lines 43-53, find grouped message);

determining from information associated with the message that message belongs to a group(fig 7, col 5, lines 24-26);

associating the messages and other related messages with a group identified by a unique group identifier (fig 7, col 5, lines 24-26);

locking the group via unique group identifier (col 7, line 39, lock applied to entire group), the lock preventing a disparate requestor from accessing the one or more messages linked by the unique group identifier (col 4, lines 53-54; col 7, line 39, lock applied to entire group and no other thread or application may access the message);

providing exclusive serial access to one or more messages of the group identified by the unique group identifier to the requestor (col 4, lines 53-54; col 7, line 39, exclusive lock applied to entire group and no other thread or application may access the message) such that the messages are processed in order (fig 7 and 8, col 4, lines 57-60);

while providing exclusive serial access to the one or more messages of the conversation group (col 4, lines 53-54; col 7, line 39, exclusive lock applied to entire group and no other thread or application may access the message), when a requestor has finished processing the linked messages, receiving a notification from the requestor to release the lock on the conversation group (col 4, lines 53-56, broadly interpreting unlocked by the application is releasing lock; see abstract also); and releasing the lock (col 4, lines 53-56, broadly interpreting unlocked by the application is releasing lock).

. Hickson did not specifically disclose the group is conversation group, providing concurrent processing of one or more messages not linked by the unique group identifier. However, Klein discloses group can be any type including conversation group (fig 4, para [0071]), providing concurrent processing of one or more messages not linked by the unique group identifier (para [0076]). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teachings of Klein and Hickson. All the claimed elements (concurrent processing of the messages, relationship/linking messages between parent [group] and child [message]) were known in the database art and one skilled in the art would have combined the elements as claimed by known methods with no change in their respective functions and the

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combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

12. As per claim 23, claim is rejected for the same reasons as claims 22, above. In addition, Hickson discloses utilizing message identifiers to determine whether messages are related (fig 7, col 5, lines 24-26).

13. As per claim 24, claim is rejected for the same reasons as claim 22, above. In addition, Hickson discloses receiving the conversation group identifiers to associate with the group (fig 7, col 5, lines 24-26).

14. As per claim 25, claim is rejected for the same reasons as claim 22, above. In addition, Klein discloses dynamically updating conversation group with incoming related messages (para [0069]).

15. As per claim 29, claim is rejected for the same reasons as claim 17, above. In addition, Klein discloses a computer readable medium storing computer executable instructions which when executed upon one or more computer processors facilitate processing by causing the processors to perform the method of claim 17 (para [0090]).

Response to Arguments

16. Applicant's arguments with respect to claims 17 and 22 have been considered but are moot in view of the new ground(s) of rejection.

17. In response to applicants argument regarding U.S.C. 101 rejection to the claim 29. The United States Patent and Trademark Office (USPTO) is obliged to give claims their broadest reasonable interpretation consistent with the specification during proceedings before the USPTO. *See In re Zletz*, 893 F.2d 319 (Fed. Cir. 1989) (during patent examination the pending claims must be interpreted as broadly as their terms reasonably allow). The broadest reasonable interpretation of a claim drawn to a computer readable medium (also called machine readable medium and other such variations) typically covers forms of non-transitory tangible media and transitory propagating signals *per se* in view of the ordinary and customary meaning of computer readable media, particularly when the specification is silent. *See* MPEP 2111.01.

When the broadest reasonable interpretation of a claim covers a signal *per se*, the claim must be rejected under 35 U.S.C. § 101 as covering non-statutory subject matter. *See In re Nuijten*, 500 F.3d 1346, 1356-57 (Fed. Cir. 2007) (transitory embodiments are not directed to statutory subject matter) and *Interim Examination Instructions for Evaluating Subject Matter Eligibility Under 35 U.S.C. § 101*, Aug. 24, 2009; p. 2.

The USPTO recognizes that applicants may have claims directed to computer readable media that cover signals *per se*, which the USPTO must reject under 35 U.S.C. § 101 as covering both non-statutory subject matter and statutory subject matter. In an effort to assist the patent community in overcoming a rejection or potential

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rejection under 35 U.S.C. § 101 in this situation, the USPTO suggests the following approach. A claim drawn to such a computer readable medium that covers both transitory and non-transitory embodiments may be amended to narrow the claim to cover only statutory embodiments to avoid a rejection under 35 U.S.C. § 101 by adding the limitation “non-transitory” to the claim. *Cf. Animals – Patentability*, 1077 *Off. Gaz. Pat. Office* 24 (April 21, 1987) (suggesting that applicants add the limitation “non-human” to a claim covering a multi-cellular organism to avoid a rejection under 35 U.S.C. § 101). Such an **amendment would typically not raise the issue of new matter**, even when the specification is silent because the **broadest reasonable interpretation relies on the ordinary and customary meaning that includes signals *per se***. The limited situations in which such an amendment could raise issues of new matter occur, for example, when the specification does not support a non-transitory embodiment because a signal *per se* is the only viable embodiment such that the amended claim is impermissibly broadened beyond the supporting disclosure. *See, e.g., Gentry Gallery, Inc. v. Berkline Corp.*, 134 F.3d 1473 (Fed. Cir. 1998).

Conclusion

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MOHAMMAD A. SIDDIQI whose telephone number is (571)272-3976. The examiner can normally be reached on Monday -Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on (571) 272-6776. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mohammad A Siddiqi/
Examiner, Art Unit 2493